

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Patent Application of:

Inventors: Mohammed Al-Kaabi and Jamal Hematian
Serial No: 10 / 611,659
Filed: June 30, 2003
Title: Symmetrical Multi-Unit Railroad Car
Assignee: National Steel Car
Art Unit: 3617
Examiner: Mark T. Le

APPEAL BRIEF

To: Mail Stop Appeal Brief- Patents
The Honorable Commissioner of Patents and Trademarks
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Examiner's Office Action of November 23, 2005, and in view of the Notice of Appeal filed by the Applicants on March 23, 2006 by which Applicants Appeal to the Board of Patent Appeals and Interferences of the United States Patent and Trademark Office of the rejection, made 'Final' of the at least twice rejected claims 1, 3, 5 – 8, 11, 30 – 35, 38 and 42 in the above-identified patent application.

The Applicants' Brief on Appeal is filed with the requisite filing fee under 37 C.F.R. § 41.20(b)(2) of, \$500.00. Please charge Deposit Account 15-0450 for any deficient fees due this paper.

This brief contains these items under the following headings, and in the order set forth below (37 C.F.R. § 41.37):

- I. Real Party in Interest
- II. Related Appeals and Interferences
- III. Status of Claims
- IV. Status of Amendments
- V. Summary of the Claimed Subject Matter
- VI. Grounds of Rejection to be Reviewed on Appeal

- VII. Arguments
- VIII. Claims Appendix
- IX. Evidence Appendix
- X. Related Proceedings Appendix

The final page of this brief bears the practitioner's signature.

I. Real Party in Interest

The real party in interest in the present application is National Steel Car Limited, by assignment from the inventors Mohammed Al-Kaabi and Jamal Hematian. The assignment is recorded in the United States Patent and Trademark Office at Reel 014538, Frame 0068.

II. Related Appeals and Interferences

There have been neither interferences relating to this pending application, nor any related appeal or litigation.

III. Status of Claims

The status of the claims in this application are:

1. Total Number of Claims in Application

There were 47 claims pending in this application, numbered 1 to 3, 5 to 9, and 11 to 49.

2. Status of All of the Claims

- A. Claims cancelled: Two, namely claims 4 and 10.
- B. Claims withdrawn from consideration but not cancelled: Thirty-two, namely claims 2, 9, 12 – 29, 36, 37, 39 – 41, and 43 – 49.
- C. Claims pending: Fifteen, namely claims 1, 3, 5 – 8, 11, 30 – 35, 38 and 42.
- D. Claims allowed: None.
- E. Claims objected to: None.
- F. Claims rejected: Fifteen, namely claims 1, 3, 5 – 8, 11, 30 – 35, 38 and 42.

3. **Claims on Appeal**

The claims on appeal are claims 1, 3, 5 – 8, 11, 30 – 35, 38 and 42.

IV. **Status of Amendments**

The claims were last amended on June 13, 2005 at the time of filing of a Request for Continued Examination in this matter. The amendments submitted at that time have been entered in the case and are reflected in the current status of the claims.

No amendments have been filed, subsequent to the rejection from which this appeal was originally taken, contained in the Office Action mailed November 23, 2005.

V. **Summary of the Claimed Subject Matter**

The invention is summarised in the presently pending claims. With respect to the presently rejected claims, generally speaking, in one aspect reflected in both independent claims 1 and 7, it relates to a multi-unit articulated rail road car. The car consists of an uneven number of rail road car bodies. The articulated connectors and side bearing arms connecting the various car body units are arranged in a symmetrical manner. (Page 3, paragraphs [0010] and [0013]). Although specific page and line numbers have been given in parentheses, above, the application is replete with supporting material for all of the presently pending claims, both in the text and in the illustrations. Figures 2, 4a, 6, 8a – 8c, and 9a – 9f, 10a – 10h, 11a – 11h, and 12a to 12h may be noted.

In particular, in reference to independent claim 1, the multi-unit railroad car 20, shown in figure 1, consists of an uneven number of rail road car units 22, 24, 26, interconnected by articulated connectors 36, 38 and mounted on railroad car trucks 28, 30 for travel along rail road tracks, (page 11, paragraph 81). The number of rail road car units 22, 24, 26 is uneven and at least as great as three (page 3, paragraph 10). The multi-unit rail road car includes side bearing arms, 126, 128, 130, 132 mounted to the railroad car units adjacent said articulated connectors (page 15, paragraph 15, figure 4b). The multi-unit railroad car unit has a transverse centerline CL (figures 8b and 8c, page 14, paragraph 89). The articulated connectors and side bearing arms are arranged symmetrically relative to the transverse centerline (page 3, paragraph 10 and page 3, paragraph 13, respectively).

In reference to independent claim 7, the multi-unit articulated intermodal railroad car 20 consists of an uneven number of interconnected rail road car units 22, 24, 26 (figure 1, page 3, paragraph 10). The number of interconnected railroad car units include at least first 22, second 24 and third 26 rail car units carried on a plurality of rail car trucks 28, 30, the second railcar unit 24 is a

middle rail car unit (figure 1, page 11, paragraph 81). The railroad car 20 has a transverse central plane CL bisecting the middle rail car unit 24 (page 14, paragraph 89). The first rail car unit 22 is joined to the second rail car unit 24 at a first articulated connection 36 mounted to a first 28 of the trucks and the second rail car unit 24 is joined to the third rail car unit 26 at a second articulated connection 38 mounted to a second 30 of the trucks (figure 1, page 11, paragraph 81). Each articulated connection has a male articulated connector portion 88 associated with the end of one rail car unit and a mating female articulated connector portion 86 associated with the end of an adjacent rail car unit (figure 4b, page 12, paragraph 85). The second rail car unit 24 has an first end adjacent the first rail car unit 22 and a second end adjacent the third rail car unit 26 (figure 1). The second rail car unit 24 has either male articulated connector portions 88 at both ends thereof, or female articulated connector portions 86 at both ends thereof (pages 13-14, paragraphs 89 and 90). The first 22 and third 26 rail car units each have a mating articulated connector portion engageable with the respective articulated connector portion of the first and second ends of the second rail car unit 24 (page 12, paragraph 85, pages 13-14, paragraphs 89 and 90). The second rail car unit 24 has first and second pairs of side bearing arms mounted to the ends thereof (page 4, paragraph 17) and the first 22 and third 26 rail car units have third and fourth pairs of side bearing arms respectively mounted thereto for locating opposite the second rail car unit first and second pairs of side bearing arms (page 4, paragraph 17). The first, second, third and fourth pairs of side bearing arms are symmetric relative to the transverse plane CL (page 3, paragraph 10 and page 3, paragraph 13, respectively, see also page 15, paragraph 93).

VI. Grounds of Rejection to be Reviewed on Appeal

The current grounds of rejection are given in the following statements, from the Office Action of November 23, 2005:

“2. Claims 1, 3, 5, 7, 8, 11, 30 – 35, 38 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishida (US 5,343,812) in view of Weber (US 3,399,631).

“Ishida, Figure 2, shows a multi-unit articulated railroad car similar to that recited in the instant claims, including a number of car units that consists of an uneven number of units, articulated connectors that comprises male and female portions 14, 13 respectively; wherein, the articulated connectors are arranged symmetrically relative to the transverse centerline of the railroad car. It is noted that Plager does not show side bearing arms as recited in the instant claims.

Weber discloses articulated railway car having a plurality of units connected together by articulated connectors and including side bearing arms 73, 74, 76, 77, as shown in Figures 2 and 3.

In view of Weber, it would have been obvious to one skilled in the art to provide side bearing arms to the interconnected units of Ishida, in a manner similar to that taught by Weber, so as to control side sways of the car units.

Regarding the instant claimed distances between the side bearing arms, as recited in instant claims 33 – 35, it is noted that a wider distance between the pair of side bearing arms 73, 76 or 74, 77 of Weber provides greater support against side swaying, but longer bearing arms are required to accommodate car travel about track curves; on the other hand, the opposites to the above are true for shorter distance between the pair of side bearing arms. Accordingly it would have been obvious to one skilled in the art to choose a distance, including the instant claimed distance, for use between the side bearing arms of Ishida, as modified by Weber, so as to achieve a desired balance between the swaying factor and the feasible side bearing arm length.”

“3. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 1 above, and further in view of Pileggi (US 5,2076,161).

Regarding the car unit having a well for accommodating intermodal cargos, consider the car units of Pileggi. In view of Pileggi, it would have been obvious to one skilled in the art to configure the car units of Ishida as well car units, similar to that taught by Pileggi, so as to allow accommodation of intermodal cargos.”

VII. Argument **Grouping of Claims**

The claims under appeal include independent claims 1 and 7 and dependent claims 3, 5, 6, 8, 11, 30 – 35, 38 and 42. The claims rise or fall together.

(A) Claim Rejections Under 35 U.S.C. §103 **Statement of the Law**

(a) MPEP Section 2142: Basic Requirements of a *Prima Facie* Case of Obviousness

Section 2142 of the Manual of Patent Examining Procedure (MPEP) states:

ESTABLISHING A *PRIMA FACIE* CASE OF OBVIOUSNESS

“To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or

suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on the applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

(b) Mere Possibility of Combination is Not Sufficient

Section 2143.01 of the Manual of Patent Examining Procedure (MPEP) states:

FACT THAT REFERENCES CAN BE COMBINED OR MODIFIED IS NOT SUFFICIENT TO ESTABLISH *PRIMA FACIE* OBVIOUSNESS

“The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990)

(c) Must Have Teaching, Suggestion, or Incentive to Combine

Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention *absent some teaching, suggestion or incentive* supporting the combination *ACS Hospital Systems Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir., 1984.). Cited in *In re Geiger*, 815 F.2d at 688, 2 U.S.P.Q.2d at 1268 (Fed. Cir. 1987) (Emphasis added). See also *In re Lee*, (277 F.3d 1338, 61 U.S.P.Q. 2d 1430 (Fed. Cir. 2002)).

Obviousness cannot be established by combining references without also providing objective evidence of the motivating force that would impel one skilled in the art to do what the patent applicant has done (See *In Re Lee*, *infra*; see also *Ex Parte Levengood*, 28 U.S.P.Q.2d 1300, 1302 (Bd. Pat. App. & Inter. 1993)).

(d) Inquiry Must Present a Convincing Line of Reasoning

The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done. “To support the conclusion that the claimed invention is directed toward obvious subject matter, either the references must expressly or impliedly, suggest the claimed invention or *the examiner must present a convincing line of reasoning* as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.” *Ex Parte Clapp*, 227 U.S.P.Q. 972, 973 (Bd. Pat. App. & Inter. 1985) (Emphasis added).

...

When the motivation to combine the teachings of the references is not immediately apparent, it is the duty of the examiner to explain why the combination of the teachings is proper. *Ex Parte Skinner*, 2 U.S.P.Q.2d 1788 (Bd. Pat. App. & Inter. 1986).”

(e) Inquiry Must Be Thorough And Searching

“The factual enquiry whether to combine the references must be thorough and searching. Id., It must be based on objective evidence of record. This precedent has been reinforced in myriad decisions, and cannot be dispensed with. ...

“The need for specificity pervades this authority. See e.g.,

“*In re Kotzab* 217 F.3d 1365, 1371, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000) (“particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed.”);

In re Rouffet, 149 F.3d 1350, 1359, 47 U.S.P.Q.2d 1453, 1459 (Fed. Cir. 1998) (“even when the level of skill in the art is high, the Board must identify specifically the principle, known to one of ordinary skill, that suggests the claimed combination. In other words, the Board must explain the reasons one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious.”);

In re Fritch, 972 F.2d 1260, 1265, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992) (The examiner can satisfy the burden of showing obviousness of the combination “only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references”).”

(*In re Lee*, 277 F.3d 1338, 61 U.S.P.Q.2d 1430, (Fed. Cir. 2002). Emphasis and paragraph division added.)

Conclusory statements by an examiner do not adequately address the issue of motivation to combine. (*In re Lee*, *supra*).

(f) “Would have been obvious to one skilled in the art”

The MPEP requires that the examiner provide an objective source of support for a contention that a feature is known or obvious to one skilled in the art. An unsupported statement that a feature or combination “would have been obvious to one skilled in the art” is improper if made without support. *In re Lee*, *supra*, and *In re Garrett* 132 U.S.P.Q. 514 (Pat. Off. Bd. App. 1961).

A statement that modifications of the prior art to meet the claimed invention would have been “well within the ordinary skill of the art at the time the claimed invention was made because references relied upon teach that all aspects of the claimed invention were individually known in the art” is not sufficient to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levengood*, 28 U.S.P.Q.2d 1300 (Bd. Pat. App. & Inter. 1993). See also *Al-*

site Corp. v. VSI Int'l Inc., 174 F.3d 1308, 50 U.S.P.Q.2d 1161 (Fed. Cir. 1999) (The level of skill in the art cannot be relied upon to provide suggestion to combine references).

(B) **Rejection Under 35 U.S.C. §103 Over Ishida in view of Weber
Claims 1, 3, 5, 7, 8, 11, 30 – 35, 38 and 42**

All of the rejections of the presently pending claims under 35 U.S.C. 103 rely upon the combination of the Ishida and Weber references. The rejections of claim 6 also relies upon the further combination of those references with the Pileggi reference. The Applicant traverses all of these rejections and requests that they be reconsidered.

As a preliminary note, the response of October 18, 2005 incorrectly refers to “independent claims 1 and 8”. The independent claims are claims 1 and 7.

As noted above, where it is proposed to combine references to arrive at a claimed invention, the law requires that three conditions must be satisfied to establish *prima facie* grounds for rejection. One of those conditions is that each of the features of the claimed invention be present in one or another of the references upon which the rejection is based.

Considering presently rejected independent claims 1 and 7, the Applicant respectfully submits that this condition is not satisfied. At present claim 1 requires that the articulated connectors be symmetrically arranged, and also that the side-bearing arms be symmetrically arranged relative the transverse central plane of the railroad freight car. Claim 7 is of similar effect. Nowhere in the Office Action of November 23, 2005 is it demonstrated, or even actually positively stated, that either Ishida or Weber shows or describes a symmetrical arrangement of side bearing arms as claimed.

Considering Ishida and Weber in turn:

Ishida – US Patent 5,343,812 – Does not show or discuss side bearing arms

Ishida does not show or discuss side bearing arms at all, let alone a symmetrical arrangement of side bearing arms. The Office Action of November 23, 2005 admits as much, assuming that the name “Ishida” was intended rather than “Plager” in the commentary at paragraph 2.

Further, the Applicant respectfully doubts whether the conceptual schematics of Ishida, or Ishida's minimalist description, can truly be said to be enabling of much of anything with respect to the present claims. The Applicant respectfully doubts whether Ishida can even be said to have disclosed a freight car. Ishida does not appear refer to freight equipment. Ishida does refer to various preferred embodiments having powered trucks. The Applicant is not aware of any abundance of freight cars having powered trucks. Powered trucks are, however, suggestive of, and ubiquitous in, the field of passenger equipment.

Similarly, Ishida does not actually show or describe an articulated connector. Ishida refers to "articulation mechanisms". But articulation of passenger equipment is not the same thing as articulation of freight equipment. For a start, the ride quality expected is quite different. The term "articulated connector" is well understood by persons of ordinary skill in the art of freight car construction and use in North America. The Applicant respectfully submits that there is nothing in Ishida that actually shows or describes an articulated connector for a freight car as that term would be understood in North American usage.

In the Applicant's view, Ishida provides non-enabling conceptual sketches that fall well short of providing an enabling description of the features of the presently claimed invention. Perhaps more charitably, it appears that it may be said that Ishida leaves a great deal to the imagination. But rejections are required to be based on objective evidence of record, not imagination.

In summary, as admitted in the Office Action, Ishida neither shows nor describes any arrangement of side bearing arms. The Applicant doubts that Ishida provides an enabling disclosure of the features suggested in the Office Action. Ishida appears to pertain to passenger equipment. Ishida does not appear to refer to freight equipment, and does not actually show or describe an articulated connector for a railroad freight car.

Weber – US Patent 3,399,631 – Does not show or discuss symmetrical side bearing arms

The Weber reference shows side bearing arms, but does not show them in a symmetrical relationship relative to the central transverse plane of the car.

In the Office Actions of April 6, 2005, and July 22, 2005 it was asserted that items 5 and 6 of Weber could be read as a single rail road car unit. The Applicant notes that this argument is no longer relied upon by the Commissioner, and infers that it has been abandoned.

Weber Figure 1 is a schematic showing at least four units, 4, 5, 6, and 7. Weber says at col. 3, lines 11 -12 : “FIG. 1 illustrates a series of cars 4, 5, 6 and 7, illustrative also of a train of many more cars ...” (The Applicant believes that Weber's terminology may not be well chosen. Weber items 4, 5, 6 and 7 are not stand-alone rail road *cars* as understood by persons of ordinary skill in the art in North American usage, but rather car body units of a single articulated rail road car.) Weber Figure 1 does not show the connection between units 5 and 6, or between any additional units such as there may be between units 5 and 6. Consequently, Figure 1 cannot show that the articulated connectors and side bearing arms of the railroad car shown are symmetrical about the transverse axis because it doesn't show them at all. Figure 13 does show a connection between units 5 and 6 that, if employed in the car of Figure 1, would be asymmetric.

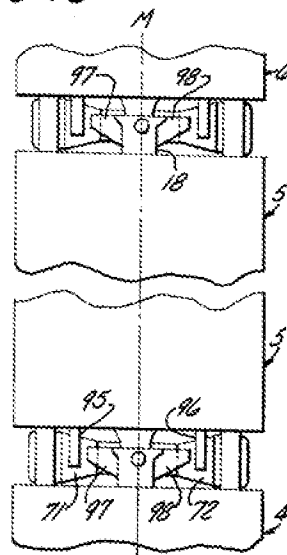
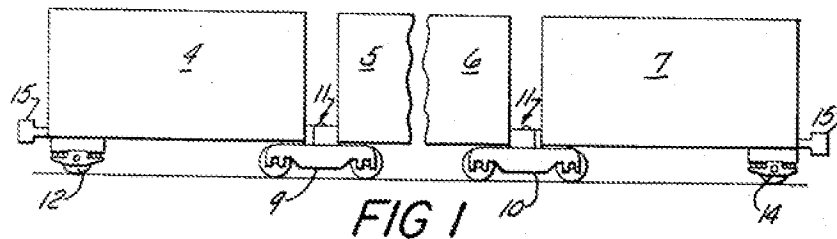


FIG 13

Thus, if Weber's railroad car were to consist of only four units (being 4, 5, 6 and 7) then it could not satisfy the condition of having a symmetrical mounting arrangement of its connectors (and also would not have an un-even number of units). Alternatively, if Weber's railroad car were to have more units, then the reader would be no further ahead, since there is no information at all about those other units. Thus Weber shows neither a symmetrical arrangement of articulated connectors, nor a symmetrical arrangement of side bearing arms.

There is nothing in Weber's description that would indicate either (a) that the arrangement of articulated connectors and side bearing arms was symmetrical; or (b) that there is anything to be gained by making the arrangement symmetrical. Weber does not discuss the subject at all. That is, there is nothing in Weber that shows, describes or suggests the desirability of employing a symmetrical arrangement of articulated connectors and side bearing arms.

Symmetry Not Discussed by Weber or Ishida

The present inventors have found that dynamic performance is improved where the cars are symmetrical, as discussed at pages 1 and 2 of the present specification. Neither Weber nor Ishida gives any hint that there might be a dynamic performance issue, nor that there might be an advantage in employing a symmetrical arrangement of articulated connectors and side bearing arms in a multi-unit articulated rail road freight car as presently claimed. The Applicant respectfully submits that there is nothing in either document from which a person of ordinary skill in the art would be motivated to arrive at the present invention.

In the event that the current rejections are sustained, the Applicant requests an indication in Ishida or Weber of either (a) the Figure in which the feature of a multi-unit rail road freight car having side bearing arms arranged to either side of the middle transverse plane of is shown, or (b) the column and line numbers at which that feature is described. If there is no such location, the Applicant respectfully submits that the rejections should be withdrawn and the claims allowed.

No Motivation to Combine

There is nothing in the Office Action of November 23, 2005 that explains why a person skilled in the art would be motivated to employ either the articulated connectors or the side bearing arms of Weber in the railroad car of Ishida. As noted above, Ishida appears to be discussing passenger equipment. There is no reason established why the freight car articulated connectors and side bearing arms of Weber would be installed in passenger equipment, and there does not appear to be any suggestion in Ishida that Ishida is discussing, or contemplating, freight equipment or articulated connectors and side bearing arms for freight equipment.

Summary re: Ishida and Weber

Ishida does not show or describe side bearing arms at all. Weber shows side bearing arms, but does not show or describe a symmetrical arrangement of side bearing arms.

Therefore, unlike the claimed invention of claims 1 and 7, (and of all claims dependent therefrom) neither of the references cited, nor both taken together, show or describe a multi-unit articulated rail road freight car having a symmetrical arrangement of articulated connectors and side bearing arms. As such, the Applicant respectfully submits that *prima facie* grounds for rejection of claims 1 and 7 (and the claims dependent therefore) have not been established.

Further, the Applicant respectfully submits that there has been no motivation, suggestion, or incentive demonstrated in the Office Action that would cause a person skilled in the art to make the modification proposed. For this additional ground, the Applicant again submits that *prima facie* grounds for rejection of claim 1 and 7, and all claims dependent from them have not been established.

(C) **Rejection Under 35 U.S.C. §103 Over Ishida in view of Weber, and further in view of Pileggi**
Claim 6

The Applicant acknowledges that the Pileggi reference shows an articulated well car. However, Pileggi neither shows nor describes a symmetric layout of articulated connectors and side bearing arms, and does not anywhere address the topic of symmetrical arrangements. In view of the commentary made above with regard to Weber, the Applicant respectfully submits that *prima facie* grounds for rejection of claim 6 under 35 U.S.C. 103 have not been established. In addition, the Applicant respectfully submits that there is nothing in Pileggi that shows, describes, or suggests a symmetrical arrangement of articulated connectors.

Conclusion

The Applicant has submitted that, contrary to the rejections made in the office action, neither Ishida nor Weber shows or describes an arrangement of side bearing arms that is symmetrical relative to the central plane of a multi-unit articulated rail road car. Furthermore neither reference points to any advantage this feature might have. Given that the feature seems to be missing from both references, the Applicant respectfully submits that *prima facie* grounds of rejection of the

claims have not been established. The Applicant therefore submits that the claims are presently allowable, and respectfully requests that the rejections be reconsidered and the claims allowed.

Respectfully submitted,

/mhm/

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VIII. Claims Appendix

1. A multi-unit articulated railroad freight car,
said multi-unit railroad car consisting of a number of rail road car units interconnected by articulated connectors, and mounted on railroad car trucks for travel along rail road tracks;
said number of rail road car units of which said rail road car consists being an uneven number that is at least as great as three;
and wherein said multi-unit rail road car comprises side bearing arms mounted to said railroad car units adjacent said articulated connectors,
said multi-unit railroad car has a transverse centerline; and
the articulated connectors and side bearing arms are arranged symmetrically relative to said transverse centerline.
2. (Withdrawn)
3. The multi-unit articulated railroad car of claim 1 wherein:
one of said rail car units is a middle rail car unit;
each said articulated connector has a male portion and a female portion; and
said middle rail car unit has two of said female portions mounted thereto.
4. (Cancelled)

5. The multi-unit articulated railroad car of claim 1 wherein:
one of said railcar units is a middle rail car unit carried between first and second ones of said rail car trucks, and
said middle rail car unit has side bearing arms mounted thereto, said side bearing arms engaging bearing surfaces supported on said first and second trucks, said side bearing arms being arranged symmetrically relative to said transverse centerline.
6. The multi-unit articulated railroad car of claim 1 wherein at least one of said rail car units has a well defined therein for accommodating intermodal cargo.
7. A multi-unit articulated intermodal railroad car consisting of a number of interconnected rail road car units, the number of units of which said railroad car consists being an uneven number;
said number of interconnected railroad car units including at least first, second and third rail car units carried on a plurality of rail car trucks;
said railroad car having a middle rail car unit, said second railcar unit being said middle rail car unit;
said railroad car having a transverse central plane bisecting said middle rail car unit;
the first rail car unit being joined to the second rail car unit at a first articulated connection mounted to a first of said trucks and the second rail car unit being joined to the third rail car unit at a second articulated connection mounted to a second of said trucks;

each articulated connection having a male articulated connector portion associated with the end of one rail car unit and a mating female articulated connector portion associated with the end of an adjacent rail car unit;

the second rail car unit having a first end adjacent the first rail car unit and a second end adjacent the third rail car unit;

the second railcar unit being chosen from the set of railcar units having (a) male articulated connector portions at both of said first and second ends thereof; and (b) female articulated connector portions at both of said first and second ends thereof;

the first and third rail car units each having an end adjacent the second rail car unit, the first and third rail car unit ends each having a mating articulated connector portion engageable with the respective articulated connector portion of the first and second ends of the second rail car unit;

the second rail car unit having a first pair of side bearing arms mounted to the first end thereof and a second pair of side bearing arms mounted to the second end thereof;

the first rail car unit end having a third pair of side-bearing arms mounted thereto for locating opposite the first pair of side-bearing arms; and

the third rail car unit end having a fourth pair of side-bearing arms mounted thereto for locating opposite the second pair of side-bearing arms;

the first, second, third and fourth pairs of side bearing arms being arranged symmetrically relative to said transverse plane.

8. The multi-unit articulated intermodal railroad car of claim 7 wherein:
the articulated connector portion mounted to each end of the second rail car unit is a female articulated connector portion; and
the articulated connector portions mounted to the first and third rail car unit ends are male articulated connector portions.
9. (Withdrawn)
10. (Cancelled)
11. The multi-unit articulated intermodal railroad car of claim 8 wherein:
each side-bearing arm has a proximal end connected to a respective end of a rail car unit and a distal end;
the side-bearing arms of the first pair are spaced away from each other a first distance measured center-to-center at the proximal ends thereof;
the side-bearing arms of the second pair are spaced away from each other a second distance measured center-to-center at the proximal ends thereof, the second distance being equal to the first distance;
the side-bearing arms of the third pair are spaced away from each other a third distance measured center-to-center at the proximal ends thereof; and
the side-bearing arms of the fourth pair are spaced away from each other a fourth distance measured center-to-center at the proximal ends thereof, the fourth distance being equal to the third distance.

12. (Withdrawn)

13. (Withdrawn)

14. (Withdrawn)

15. (Withdrawn)

16. (Withdrawn)

17. (Withdrawn)

18. (Withdrawn)

19. (Withdrawn)

20. (Withdrawn)

21. (Withdrawn)

22. (Withdrawn)

- 23. (Withdrawn)
- 24. (Withdrawn)
- 25. (Withdrawn)
- 26. (Withdrawn)
- 27. (Withdrawn)
- 28. (Withdrawn)
- 29. (Withdrawn)
- 30. The multi-unit articulated intermodal railroad car of claim 11 wherein the first distance is equal to the third distance.
- 31. The multi-unit articulated intermodal railroad car of claim 30 wherein:
 - the side-bearing arms of the first pair extend substantially perpendicular to the first end of the second rail car unit;
 - the side-bearing arms of the second pair extend substantially perpendicular to the second end of the second rail car unit;

the side-bearing arms of the third pair extend substantially perpendicular to the third rail car unit end;

the side-bearing arms of the fourth pair extend substantially perpendicular to the fourth rail car unit end.

32. The multi-unit articulated intermodal railroad car of claim 31 wherein:
the distal ends of the side-bearing arms of the first pair are aligned with the distal ends of the third pair of side-bearing arms; and
the distal ends of the side-bearing arms of the second pair are aligned with the distal ends of the fourth pair of side-bearing arms.
33. The multi-unit articulated intermodal railroad car of claim 31 wherein the first distance is in the range of 50 inches to 70 inches.
34. The multi-unit articulated intermodal railroad car of claim 33 wherein the first distance is 50 inches.
35. The multi-unit articulated intermodal railroad car of claim 33 wherein the first distance is 70 inches.
36. (Withdrawn)
37. (Withdrawn)

- 38. The multi-unit articulated intermodal railroad car of claim 10 wherein each articulated connection is carried at a first height above TOR; and the side-bearing arms of each pair are carried at a second height above TOR.
- 39. (Withdrawn)
- 40. (Withdrawn)
- 41. (Withdrawn)
- 42. The multi-unit articulated intermodal railroad car of claim 38 wherein the second height is substantially equal to the first height.
- 43. (Withdrawn)
- 44. (Withdrawn)
- 45. (Withdrawn)
- 46. (Withdrawn)
- 47. (Withdrawn)

48. (Withdrawn)

49. (Withdrawn)

IX. Evidence Appendix

No evidence is submitted at this time.

X. Related Proceedings Appendix

There are no related proceedings.